

## EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S1	1	10/573211.app.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/07/30 17:49
S2	6	US-1057321-\$.DID. OR US-6555403-\$.DID. OR US-6493367-\$.DID. OR US-6121638-\$. DID. OR US-20040051105-\$.DID. OR WO-0221604-\$.DID.	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2009/07/30 18:05
S3	8	US-5959307-\$.DID. OR US-0126006-\$.DID. OR US-6586774-\$.DID. OR US-6720586-\$. DID. OR US-20020041613-\$.DID. OR US-2051998-\$.DID.	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2009/07/30 18:08
S6	11	nitride and overflow near3 suppression and "257".clas.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/07/30 18:37
S5	69	nitride and overflow and suppression and "257".clas.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/07/30 18:37
S4	150	nitride and overflow and suppression	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/07/30 18:37
S7	1	overflow near3 suppression and start near3 layer and intermediate near3 layer and nitride	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/07/30 19:01

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S9	388	start near3 layer and intermediate near3 layer and nitride	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/07/30 19:02
S8	5	suppression near3 layer and start near3 layer and intermediate near3 layer and nitride	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/07/30 19:02
S10	59	start near3 layer same intermediate near3 layer and nitride	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/07/30 19:03
S13	17	(mcintosh macintosh) and nitride and suppress\$4 and intermediate	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/07/31 08:07
S12	64	(mcintosh macintosh) and nitride and suppress\$4	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/07/31 08:07
S11	0	(mcintosh macintosh) and nitride and suppress\$4	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/07/31 08:07
S18	51	(mcintosh macintosh).in. and nitride	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/07/31 08:08

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S17	0	(mcintosh macintosh).in. and nitride and suppress\$4	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/07/31 08:08
S16	51	(mcintosh macintosh).in. and nitride	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/07/31 08:08
S15	0	(mcintosh macintosh).in. and nitride and suppress\$4 and intermediate	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/07/31 08:08
S14	51011	(mcintosh macintosh)".in" and nitride and suppress\$4 and intermediate	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/07/31 08:08
S19	13	(mcintosh macintosh).in. and nitride and ("438" "257" "372").clas.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/07/31 08:09
S20	6	algan near10 doping near10 start near10 (layer region)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/07/31 09:14
S21	52	gan near10 intermediate near2 layer same (gainn ingan) near10 intermediate near2 layer	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/07/31 09:33

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S24	51	gan near5 intermediate near2 layer same (gaaln algan) near5 intermediate near2 layer	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/07/31 09:35
S23	73	gan near10 intermediate near2 layer same (gaaln algan) near5 intermediate near2 layer	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/07/31 09:35
S22	109	gan near10 intermediate near2 layer same (gaaln algan) near10 intermediate near2 layer	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/07/31 09:35
S29	1	(gan gaaln algan) same impurity near5 doping near5 start	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/07/31 09:56
S27	1	(gan gaaln algan) near10 impurity near5 doping near5 start	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/07/31 09:56
S26	1	(gaaln algan) near10 impurity near5 doping near5 start	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/07/31 09:56
S25	1	(gaaln algan) near5 impurity near5 doping near5 start	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/07/31 09:56

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S30	73	electron near2 overflow near5 layer same nitride	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/07/31 15:03
S32	64	electron near2 overflow near3 layer same nitride and ("257" "438" "372").clas.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/07/31 15:18
S31	69	electron near2 overflow near5 layer same nitride and ("257" "438" "372").clas.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/07/31 15:18
S33	6	(p near1 type p-type) near2 (algaan gaaln) near10 electron near2 overflow near3 layer same nitride and ("257" "438" "372").clas.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/07/31 15:20
S34	6	((p near1 type p-type) near2 (algaan gaaln) p-algaan p-gaalin) near10 electron near2 overflow near3 layer same nitride and ("257" "438" "372").clas.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/07/31 15:23
S37	18	((p near1 type p-type) near2 (algaan gaaln) p-algaan p-gaalin) near10 electron near2 overflow near3 layer and ("257" "438" "372").clas.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/07/31 15:24
S36	47	((p near1 type p-type) near2 (algaan gaaln) p-algaan p-gaalin) same electron near2 overflow near3 layer and ("257" "438" "372").clas.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/07/31 15:24

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S35	15	((p near1 type p-type) near2 (algaan gaaln) p-algaan p-gaaln) same electron near2 overflow near3 layer same nitride and ("257" "438" "372").clas.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/07/31 15:24
S39	0	((p near1 type p-type) near2 (algaan gaaln) p-algaan p-gaaln) near10 acceptor near3 impurity near3 doping near3 (layer film) and ("257" "438" "372").clas.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/07/31 15:38
S38	77	acceptor near3 impurity near3 doping near3 (layer film) and ("257" "438" "372").clas.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/07/31 15:38
S40	18	((p near1 type p-type) near2 (algaan gaaln) p-algaan p-gaaln) same acceptor near3 impurity near3 doping near3 (layer film) and ("257" "438" "372").clas.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/07/31 15:39
S41	28	acceptor near2 impurity near2 doping near2 (layer film) and acceptor near3 impurity near3 doping near3 (layer film) and ("257" "438" "372").clas.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/07/31 15:42
S42	28	S41 not S40	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/07/31 15:43
S43	33	first near3 ((p near1 type p-type) near2 (algaan gaaln) p-algaan p-gaaln) and second near3 ((p near1 type p-type) near2 (algaan gaaln) p-algaan p-gaaln) and ("257" "438" "372").clas.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/07/31 16:01

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S44	36	(p near1 type p-type p-doped) near5 (contain\$3 includ\$4 dop\$4) near5 (aluminum al) near5 (mg magnesium) near5 nitride near (layer film)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/08/01 07:06
S45	26	(p near1 type p-type p-doped) near5 (contain\$3 includ\$4 dop\$4) near5 ((aluminum al) near5 (mg magnesium) (mg magnesium) near5 (aluminum al) ) near5 nitride near2 (layer film)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/08/01 07:15
S47	46	S44 S45 S46	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/08/01 07:16
S46	19	(p near1 type p-type p-doped) near5 nitride near2 (layer film) near5 (contain\$3 includ\$4 dop\$4) near5 ((aluminum al) near5 (mg magnesium) (mg magnesium) near5 (aluminum al) )	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/08/01 07:16
S48	49	(p near1 dop\$3 p-dop\$3 p-type p near1 type) near20 intermediate near2 (layer film) near20 (algaln gaaln)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/08/01 09:09
S49	4	(p near1 dop\$3 p-dop\$3 p-type p near1 type) near20 (lattice near3 match\$4) near2 (layer film) near20 (algaln gaaln) near20 (gan)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/08/01 09:36
S50	51	(p near1 dop\$3 p-dop\$3 p-type p near1 type) same (lattice near3 match\$4) same (algaln gaaln) near20 (gan)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/08/01 09:42

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S51	0	(p near1 dop\$3 p-dop\$3 p-type p near1 type) same graded near2 clad\$4 same (algan gaaln)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/08/01 12:07
S52	36	(p near1 dop\$3 p-dop\$3 p-type p near1 type) same graded near2 clad\$4	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/08/01 12:08
S53	2	graded near2 clad\$4 same (algan gaaln) and (p near1 dop\$3 p-dop\$3 p-type p near1 type) same (algan gaaln)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/08/01 12:10
S54	48	(p near1 dop\$3 p-dop\$3 p-type p near1 type) same spacer same (algan gaaln)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/08/01 12:20
S55	234	(super near2 lattice superlattice) same (p near1 dop\$3 p-dop\$3 p-type p near1 type) same cladd\$4 same (algan gaaln)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/08/01 12:25
S58	86	(super near2 lattice superlattice) near5 cladd\$4 same (p near1 dop\$3 p-dop\$3 p-type p near1 type) near5 (algan gaaln)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/08/01 12:26
S57	96	(super near2 lattice superlattice) near5 cladd\$4 same (p near1 dop\$3 p-dop\$3 p-type p near1 type) near10 (algan gaaln)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/08/01 12:26

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S56	126	(super near2 lattice superlattice) near5 cladd\$4 same (p near1 dop\$3 p-dop\$3 p-type p near1 type) same (algan gaaln)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/08/01 12:26
S61	2	"20080298414".pn.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/08/01 12:33
S63	2	"6838705".pn.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/08/01 12:46
S65	16	gan near10 contact near2 (layer region film) near10 function\$4 near10 clad\$4	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/08/02 07:10
S66	0	(algan gaaln) near20 (intermediate spacer) near2 (layer film region) near20 (remov\$4 alleviat\$4 reduc\$4) near10 ( strain stress)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/08/02 07:57
S67	13	(algan gaaln) same (intermediate spacer) near2 (layer film region) same (remov\$4 alleviat\$4 reduc\$4) same ( strain stress)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/08/02 07:58
S69	11	optim\$5 same thick\$4 same (intermediate spacer) near2 (layer film region) same (remov\$4 alleviat\$4 reduc\$4) same (strain stress) and ("257" "372" "438").clas.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/08/02 08:52

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S70	4	optim\$5 same thick\$4 same (intermediate spacer) same (remov\$4 alleviat\$4 reduc\$4) same (strain stress) same lattice and ("257" "372" "438").clas.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/08/02 09:33
S71	9	("20020041613" "20040051105" "5777350" "5959307" "6121638" "6493367" "6555403" "6586774" "6720586").PN.	US-PGPUB; USPAT; USOCR	OR	ON	2010/03/23 12:01
S72	128	("257" "372" "438").clas. and dop\$4 near5 start near5 layer	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/03/23 14:53
S75	13	("257" "372" "438").clas. and nitride near5 (LED light near1 emi\$5 near1 (diode device) laser near1 (diode semiconductor)) and dop\$4 near5 start near5 layer	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/03/23 14:55
S76	4	("257" "372" "438").clas. and nitride near5 (LED light near1 emi\$5 near1 (diode device) laser near1 (diode semiconductor)) and dop\$4 near2 (guid\$4 waveguid\$4) near1 layer same undop\$4 near2 (guid\$4 waveguid\$4) near1 layer	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/03/23 15:11
S77	11	("257" "372" "438").clas. and nitride near5 (LED light near1 emi\$5 near1 (diode device) laser near1 (diode semiconductor)) and dop\$4 near2 (guid\$4 waveguid\$4) near1 layer same (non adj dop\$4 undop\$4) near2 (guid\$4 waveguid\$4) near1 layer	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/03/23 15:17
S78	335	("257" "372" "438").clas. and nitride near5 (LED light near1 emi\$5 near1 (diode device) laser near1 (diode semiconductor)) and p near1 type near5 (waveguid\$4 guid\$4) near2 layer near10 (algan Gaaln)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/03/23 17:03
S79	241	("257" "372" "438").clas. and nitride near5 (LED light near1 emi\$5 near1 (diode device) laser near1 (diode semiconductor)) and p near1 type near3 (waveguid\$4 guid\$4) near1 layer near5 (algan Gaaln)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/03/23 17:04

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S80	47	("257" "372" "438").clas. and nitride near5 (LED light near1 emi\$5 near1 (diode device) laser near1 (diode semiconductor)) and p near1 type near3 (waveguid\$4 guid\$4) near1 layer near5 (algan Gaaln) and (electron carrier) near2 (block\$4 suppress\$4 shield\$4) near2 layer	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/03/23 17:05
S81	45	("257" "372" "438").clas. and nitride near5 (LED light near1 emi\$5 near1 (diode device) laser near1 (diode semiconductor)) and p near1 type adj3 (algan Gaaln) near3 (waveguid\$4 guid\$4) near1 layer and (electron carrier) near2 (block\$4 suppress\$4 shield\$4) near2 layer	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/03/23 17:09
S82	15	("257" "372" "438").clas. and nitride near5 (LED light near1 emi\$5 near1 (diode device) laser near1 (diode semiconductor)) and p near1 type adj3 (algan Gaaln) adj3 (waveguid\$4 guid\$4) near1 layer and (electron carrier) near2 (block\$4 suppress\$4 shield\$4) near2 layer	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/03/23 17:11
S83	32	("257" "372" "438").clas. and nitride near5 (LED light near1 emi\$5 near1 (diode device) laser near1 (diode semiconductor)) and p near1 type adj3 (algan Gaaln) adj3 (waveguid\$4 guid\$4) near1 layer	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/03/23 17:18
S84	22	("257" "372" "438").clas. and (LED light near1 emi\$5 near1 (diode device) laser near1 (diode semiconductor)) and p near1 type adj3 (algan Gaaln) adj3 (waveguid\$4 guid\$4) adj1 layer and p near1 type adj3 (algan Gaaln) adj3 (clad\$4) adj1 layer	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/03/23 17:55
S85	22	("257" "372" "438").clas. and (LED light near1 emi\$5 near1 (diode device) laser near1 (diode semiconductor)) and p adj type adj3 (algan Gaaln) adj3 (waveguid\$4 guid\$4) adj1 layer and p adj type adj3 (algan Gaaln) adj3 (clad\$4) adj1 layer	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/03/23 17:57
S86	16	("257" "372" "438").clas. and (LED light near1 emi\$5 near1 (diode device) laser near1 (diode semiconductor)) and p adj type adj3 (algan Gaaln) adj3 (waveguid\$4 guid\$4) adj1 layer same p adj type adj3 (algan Gaaln) adj3 (clad\$4) adj1 layer	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/03/23 17:58

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S87	19	(257/13,79,94,96,97,103,e33.011).ccls. and nitride near5 (LED light near1 emi\$5 near1 (diode device) laser near1 (diode semiconductor)) and p near1 type adj3 (algan GaIn) near3 (waveguid\$4 guid\$4) near1 layer and (electron carrier) near2 (block\$4 suppress\$4 shield\$4) near2 layer	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/03/23 18:22
S88	3	2001-127209	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/03/23 18:42
S89	4	2002-324913	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/03/23 18:43
S90	3	"2002324913"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/03/23 18:44
S91	1	2003-053401.NRAN.	DERWENT	OR	ON	2010/03/23 18:45
S93	1	2003-904353.NRAN.	DERWENT	OR	ON	2010/03/23 18:53
S92	1	"20060138431"	DERWENT	OR	ON	2010/03/23 18:53
S94	2	(GaIn AlGaIn) same conventional same TMG same TMA	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/03/23 22:40
S95	2	(GaIn AlGaIn) same (advantag\$5 benefi\$5) same TMG same TMA	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/03/23 22:42
S96	11	(GaIn AlGaIn) same (typical\$4) same TMG same TMA	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/03/23 22:43

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S10 0	1	(257/13,79,94,96,97,103,e33.011).ccls. and nitride near5 (LED light near1 emi\$5 near1 (diode device) laser near1 (diode semiconductor)) and p near1 type adj3 (algaan Gaaln) near3 (waveguid\$4 guid\$4) near1 layer and (electron carrier) near2 (block\$4 suppress\$4 shield\$4) near2 layer and @pd>="20100323"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/09/11 19:46
S10 2	17	("257" "372").clas. and doped near5 undoped near10 (light near1 guide)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/12/15 13:38
S10 3	17	("257" "372" "438").clas. and doped near5 undoped near10 (light near1 guide)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/12/15 13:41
S10 4	80	("257" "372" "438").clas. and doped near5 (undoped nondoped non-doped) near20 (light near3 guid\$4)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/12/15 13:51
S10 5	1	12/143646	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/12/15 16:06
S10 6	335	("438" "257" "372").clas. and (ebl (block\$4 stop\$4 suppress\$4 barrier) near1 (electron hole carrier) near1 (region film layer)) same (guid\$4 waveguid\$2) near1 (light optical)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/12/15 19:50
S10 7	321	("438" "257" "372").clas. and (ebl (block\$4 stop\$4 suppress\$4 barrier) near1 (electron hole carrier) near1 (region film layer)) same (guid\$4 waveguid\$2) near1 (light optical) near1 (film region layer)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/12/15 19:52

## EAST Search History (Prior Art)

S10 8	164	("438" "257" "372").clas. and (alingan algan inalgan gaaln) near5 clad\$4 near1 (layer film region) near5 (p adj type p-type) same (alingan algan inalgan gaaln) near5 ( waveguide guid\$4) near1 (light optical) near1 (layer film region) near5 (p adj type p-type)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/12/15 20:13
S10 9	4	11-001940	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/12/15 21:29
S11 0	20	("5740192").PN. OR ("6614059").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2010/12/15 21:31
S11 1	164	("438" "257" "372").clas. and (gaalinn gainaln alingan algan inalgan gaaln) near5 clad\$4 near1 (layer film region) near5 (p adj type p-type) same (gaalinn gainaln alingan algan inalgan gaaln) near5 ( waveguide guid\$4) near1 (light optical) near1 (layer film region) near5 (p adj type p-type)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/12/15 21:51
S11 4	35	S112 not S111	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/12/15 21:52
S11 3	165	I12not S111	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/12/15 21:52
S11 2	199	(gaalinn gainaln alingan algan inalgan gaaln) near5 clad\$4 near1 (layer film region) near5 (p adj type p-type) same (gaalinn gainaln alingan algan inalgan gaaln) near5 ( waveguide guid\$4) near1 (light optical) near1 (layer film region) near5 (p adj type p-type)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/12/15 21:52
S11 5	2	(257/13,79,94,96,97,103,633,011).cds. and nitride near5 (LED light near1 emi\$5 near1 (diode device) laser near1 (diode semiconductor)) and p near1 type adj3 (algan Gaaln) near3 (waveguid\$4 guid\$4) near1 layer and (electron carrier) near2 (block\$4 suppress\$4 shield\$4) near2 layer and @pd>="20100911"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/12/15 22:54

## EAST Search History (Prior Art)

S11 7	190	nitride and (undoped un adj doped nondoped non adj doped) near2 (ingan gainn) near2 well	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/03/19 00:31
S11 8	59	nitride and (undoped un adj doped nondoped non adj doped) near2 (ingan gainn) near2 well near10 gan near2 barrier	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/03/19 00:34
S11 9	2	nitride and (undoped un adj doped nondoped non adj doped) near2 (ingan gainn) near2 well near10 gan near2 barrier and matsushita.as.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/03/19 00:39
S12 0	0	(257/13,79,94,96,97,103,633.011).ccls. and nitride near5 (LED light near1 emi\$5 near1 (diode device) laser near1 (diode semiconductor)) and p near1 type adj3 (algan Gaaln) near3 (waveguid\$4 guid\$4) near1 layer and (electron carrier) near2 (block\$4 suppress\$4 shield\$4) near2 layer and @pd>="20101215"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/03/19 08:43
S12 2	49	carrier near1 overflow\$4 near1 layer	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/03/19 19:43
S12 3	64	carrier near2 overflow\$4 near2 suppress\$4 near2 layer	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/03/19 19:44
S12 5	2	"20030136970" .pn.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/03/19 19:49

## EAST Search History (Prior Art)

S12 4	7	2003/0136970	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/03/19 19:49
S12 6	6	9-219556	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/03/19 19:55
S12 7	3	(ebl electron near1 block\$4 near layer) near10 next near10 clad\$5	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/03/19 20:15
S12 9	56	(ebl electron near1 block\$4 near layer) near10 guide near2 layer near10 clad\$5	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/03/19 20:18
S13 0	26	(KUBOTA near1 SHINICHI).in. and layer	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/03/19 20:26
S13 1	28	ebl near10 laser	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/03/19 22:18
S13 2	74	ebl same laser	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/03/19 22:19

## EAST Search History (Prior Art)

S13 3	8	ebl same laser same nitride	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2011/03/19 22:20
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## EAST Search History (Interference)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S98	0	(257/13,79,94,96,97,103,e33.011).ccls. and (p near1 type adj3 (aluminum algan GaIn) near3 (waveguid\$4 guid\$4) near1 layer and (electron carrier) near2 (block\$4 suppress\$4 shield\$4) near2 layer).clm.	US-PGPUB; USPAT; UPAD	OR	ON	2010/03/23 18:29
S97	0	(257/13,79,94,96,97,103,e33.011).ccls. and (p near1 type adj3 (algan GaIn) near3 (waveguid\$4 guid\$4) near1 layer and (electron carrier) near2 (block\$4 suppress\$4 shield\$4) near2 layer).clm.	US-PGPUB; USPAT; UPAD	OR	ON	2010/03/23 18:29
S99	0	(257/13,79,94,96,97,103,e33.011).ccls. and (p near1 type adj3 (aluminum algan GaIn nitride) near3 (waveguid\$4 guid\$4) near1 layer and (electron carrier) near2 (block\$4 suppress\$4 shield\$4) near2 layer).clm.	US-PGPUB; USPAT; UPAD	OR	ON	2010/03/23 18:30
S101	1	(257/13,79,94,96,97,103,e33.011).ccls. and nitride near5 (LED light near1 emi\$5 near1 (diode device) laser near1 (diode semiconductor)) and p near1 type adj3 (algan GaIn) near3 (waveguid\$4 guid\$4) near1 layer and (electron carrier) near2 (block\$4 suppress\$4 shield\$4) near2 layer and @pd>="20100323"	US-PGPUB; USPAT; UPAD	OR	ON	2010/09/11 19:48
S116	0	(257/13,79,94,96,97,103,e33.011).ccls. and (nitride near5 (LED light near1 emi\$5 near1 (diode device) laser near1 (diode semiconductor)) and p near1 type adj3 (algan GaIn) near3 (waveguid\$4 guid\$4) near1 layer and (electron carrier) near2 (block\$4 suppress\$4 shield\$4) near2 layer).clm. and @pd>="20100911"	US-PGPUB; USPAT; UPAD	OR	ON	2010/12/15 22:56
S121	0	(257/13,79,94,96,97,103,e33.011).ccls. and (nitride near5 (LED light near1 emi\$5 near1 (diode device) laser near1 (diode semiconductor)) and p near1 type adj3 (algan GaIn) near3 (waveguid\$4 guid\$4) near1 layer and (electron carrier) near2 (block\$4 suppress\$4 shield\$4) near2 layer).clm. and @pd>="20101215"	US-PGPUB; USPAT; UPAD	OR	ON	2011/03/19 08:44